

## CLAIMS

What is claimed:

1. A method for monitoring system processor usage time by a software agent operating in a computer system, said method comprising the steps of:
  - identifying said agent by associating an agent identifier therewith;
  - initiating an agent lifetime timer for monitoring an operating interval for said agent;
  - determining said operating interval using said lifetime timer; and
  - storing said operating interval and said agent identifier in a computer-readable memory.
2. The method of claim 1, wherein said computer-readable memory includes a hash table.
3. The method of claim 1 wherein determining said operating interval further comprises identifying a start time and a completion time for said agent.
4. The method of claim 3 wherein determining said operating interval further comprises computing an elapsed time as the difference between said starting time and said completion time for said agent.
5. The method of claim 1 further comprising:
  - associating said operating interval and said agent identifier with other operating intervals and agent identifiers associated with a plurality of other software agents operating in said system.
6. The method of claim 5 further comprising:

filtering said agent and said plurality of other agents according to predefined filtering criteria to produce a filtered set.

7. The method of claim 6 further comprising:  
rank ordering said filtered set.
8. The method of claim 7 further comprising:  
making said filtered set available to a display device.
9. The method of claim 6 further comprising:  
determining a corrective measure for at least one member of said filtered set.
10. The method of claim 9 further comprising:  
displaying said corrective measure on a display device.
11. The method of claim 9, wherein said corrective measure is implemented by said system.
12. A computer readable medium having store instructions for causing a processing unit to execute the steps of the method of claim 1.
13. A method for monitoring system processor time usage by a software agent having a thread associated therewith, said thread having a thread lifetime and said agent having an agent lifetime, said method comprising the steps of:  
associating an agent identifier with said agent;  
initiating an agent lifetime timer for monitoring said agent lifetime;

determining system processor resource allocations associated with said agent, said resource allocations defining a footprint for said agent comprising:  
an amount of system processor resources utilized by said thread during said thread lifetime; and  
an amount of system processor resources utilized by said agent during said agent lifetime;  
associating said footprint with said agent identifier;  
storing said footprint and said agent identifier in a computer-readable memory;  
comparing said footprint of said agent to a plurality of footprints associated with a like plurality of other software agents;  
ranking said footprint of said agent against said plurality of footprints;  
and  
displaying those of said agent footprint and said plurality of footprints exceeding a predefined threshold.

13. The method of claim 12 further comprising:  
establishing a system processor resources configuration threshold  
defining a maximum amount of system processor resources to be utilized by each of said software agent and said plurality of other software agents.
14. The method of claim 13, further comprising:  
running a collection probe to determine if a total amount of consumed system processor resources exceeds said configuration threshold; and  
performing said initiating step when said total amount of consumed system processor resources exceeds said configuration threshold.

15. A computer program product having machine-readable instructions disposed thereon for instructing a processor to perform a method for monitoring system processor time for a software agent operating in a computer system, said computer program product comprising:
  - instructions for initiating an agent lifetime timer for monitoring an operating interval associated with said agent;
  - instructions for determining system processor resource allocations associated with said agent;
  - instructions for storing said operating interval and said resource allocations associated with said agent; and
  - instructions for notifying a system operator about said operating interval and said resource allocations.
16. The method of claim 15 further comprising:
  - instructions for associating a software agent identifier with said agent, said identifier for facilitating tracking said system processor time associated with said agent.
17. The method of claim 16 further comprising:
  - instructions for associating said software agent identifier with said operating interval and said resource allocations prior to storing said operating interval and said resource allocations associated with said agent.
18. An apparatus for tracking system processor time of a software agent operating in a computer system comprising:
  - means for identifying said agent by associating an agent identifier therewith;

means for initiating an agent lifetime timer for monitoring an operating interval of said agent;

means for determining said operating interval using said lifetime timer;  
and

means for storing said operating interval and said agent identifier in a computer-readable memory having a hash table associated therewith.

19. A method for tracking system processor time for a target agent operatively associated with a hypertext transport protocol process operating on a computer system and running a plurality of threads, said target agent further operating with at least one of said plurality of threads, said method comprising:

creating a computer-readable hash table in a memory operatively associated with said computer system;

initiating an agent tracking function in machine-executable code in said computer system;

identifying members of said plurality of threads by associating a thread identifier with each member of said plurality of threads producing a like plurality of identified threads;

identifying those of said plurality of identified threads having said target agent operating therewith producing an identified thread set;

determining an amount of said system processor time utilized by said identified thread set; and

storing said system processor time for said identified thread set in said hash table, thereby tracking said system processor time for said target agent.

20. The method of claim 19 further comprising:

computing statistics for said identified thread set.

21. The method of claim 19 further comprising:  
rank ordering those of said plurality of identified threads having said  
target agent operating therewith.
22. The method of claim 21 further comprising:  
providing said identified set to a display device.